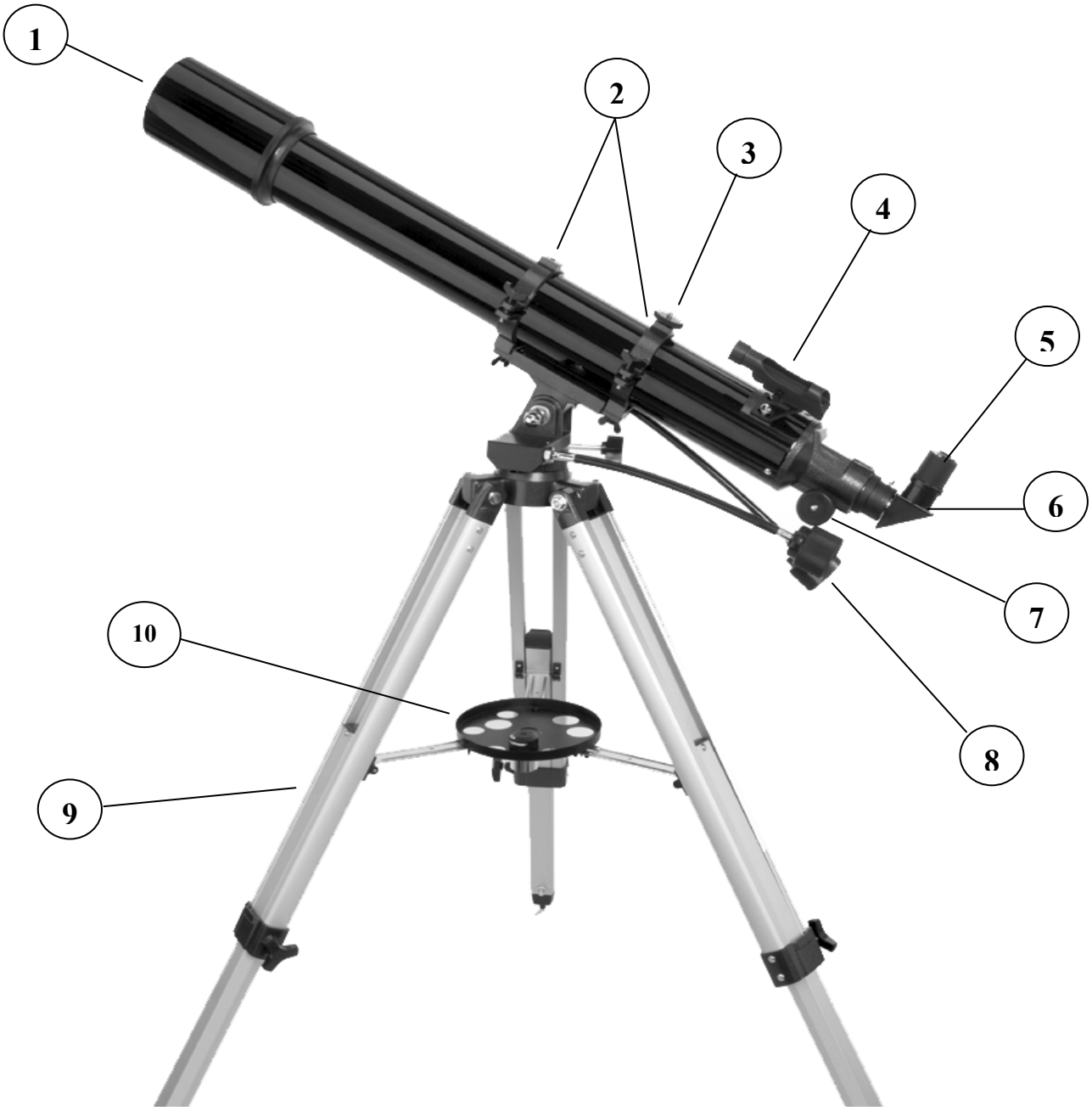
CELESTRON®

FIRSTSCOPE 90 AZ
TELESCOPE

INSTRUCTION MANUAL



Firstscope 90AZ
Refractor

1. **Objective Lens**
2. **Tube Rings**
3. **Piggyback Camera Adapter**
4. **Star Pointer Finderscope**
5. **Eyepiece**
6. **Erect Image Diagonal**
7. **Focuser**
8. **Slow Motion Cables**
9. **Tripod**
10. **Eyepiece Accessory Tray**

INTRODUCTION

Thank you for purchasing this Celestron Refractor Telescope. This telescope is a precision scientific instrument. With it you will enjoy numerous objects in the sky—planets, nebulae, star clusters, galaxies and other astronomical objects. Your refractor telescope can also be used as an excellent spotting scope for viewing daytime land objects as well.

Before your journey begins take time to read this manual to familiarize yourself with the operation and parts of your telescope.

WARNING—NEVER LOOK AT THE SUN WITH YOUR TELESCOPE OR ITS FINDERSCOPE. PERMANENT AND IRREVERSIBLE EYE DAMAGE MAY RESULT AS WELL AS DAMAGE TO YOUR TELESCOPE. HOWEVER, YOU MAY ENJOY LOOKING AT THE SUN IF YOU HAVE A SAFE METHOD OF DOING SO, SUCH AS A CELESTRON SOLAR FILTER.

Assembling Your Telescope

1) Your Firstscope 90AZ telescope should include all of the following:

   a. Tripod with Alt Az mount head
   b. Telescope tube with tube rings attached
   c. Two 1 ¼" eyepieces
   d. 45˚ erect image diagonal
   e. StarPointer Finderscope
   f. Two slow motion cables
   g. Eyepiece accessory tray

2) To set up the tripod, spread the legs outward until they are fully extended. Extend the center portion of each of the three tripod legs down 6-8". Use the three tightening screws located at the bottom of each leg to secure the extended legs in place.

3) Place the accessory tray on top of tripod's center leg brace. Thread the tray's threaded post into the hole in the center of the leg brace.

4) Slide the chrome end of each slow motion control cable onto the Alt Az mount gear shaft. See Figure A.

5) Remove the wing nuts from the threaded post at the bottom of the tube rings. Place the telescope tube on top of the Alt Az mount so that the threaded posts slide through the holes on the mount. The slow motion cables should extend towards the focuser end of the telescope tube. Replace the wing nut and tighten to hold the telescope in place.

6) Remove the plastic cap covering the end of the focuser. Loosen the set screw on the focuser so that it does not obstruct the inner diameter of the focuser. Insert the chrome barrel of the star diagonal into the focuser and tighten the set screw.

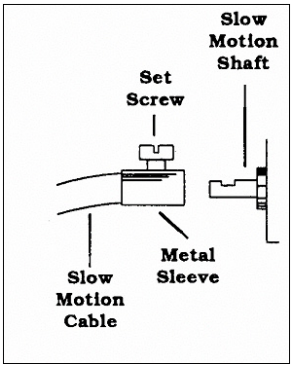


Figure A

7) Loosen the set screw on the diagonal so that it does not obstruct the inner diameter of the barrel. Insert the chrome barrel of the 20mm eyepiece into the diagonal and tighten the set screw. See Figure B

8) Locate the StarPointer finderscope. Remove the knurled nuts on the threaded posts at the focuser end of the telescope tube. Mount the Star Pointer bracket by placing the bracket over the posts protruding from the tube

and tightening it down with the knurled nuts. Orient the Star Pointer so that the glass window is facing towards the front of the tube.

9) Remove the lens cap from the front of the telescope.

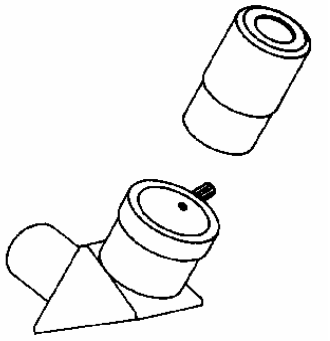


Figure B

TELESCOPE OPERATION — USING YOUR TELESCOPE

Star Pointer Finderscope

The Star Pointer is the quickest and easiest way to point your telescope exactly at a desired object in the sky. It's like having a laser pointer that you can shine directly onto the night sky. The Star Pointer is a zero magnification pointing tool that uses a coated glass window to superimpose the image of a small red dot onto the night sky. While keeping both eyes open when looking through the Star Pointer, simply move your telescope until the red dot, seen through the Star Pointer, merges with the object as seen with your unaided eye. The red dot is produced by a light-emitting diode (LED); it is not a laser beam and will not damage the glass window or your eye. The star pointer is powered by a long life 3-volt lithium battery (#CR2032) located underneath the front portion of the Star Pointer. Like all finderscopes, the Star Pointer must be properly aligned with the main telescope before it can be used. This is a simple process using the azimuth and altitude control knobs located on the side and bottom of the Star Pointer. The alignment procedure is best done at night since the LED dot will be difficult to see during the day.

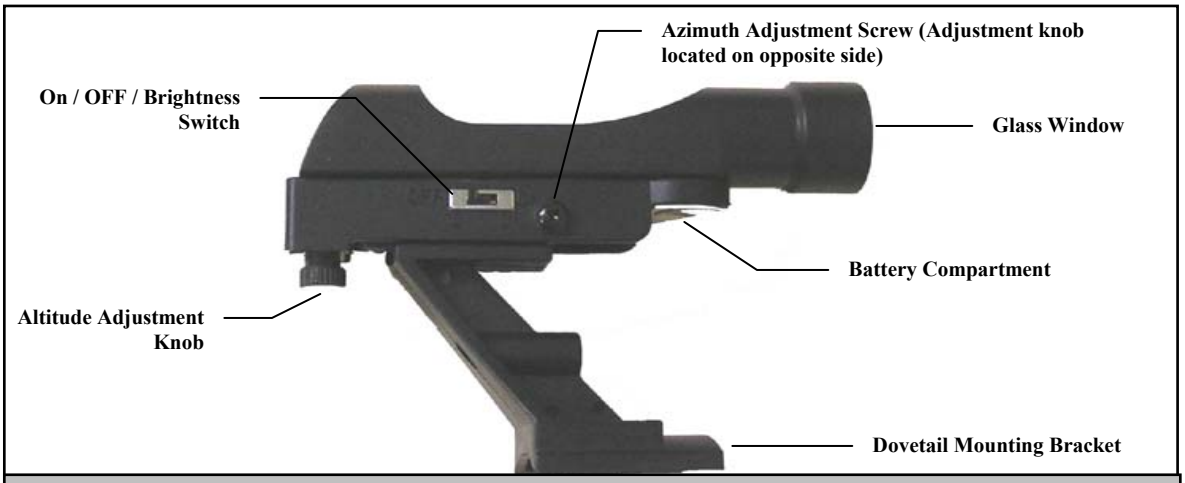


Figure 1 – The StarPointer Finderscope with Mounting Bracket

To align the Star Pointer finderscope:

1. Before using the StarPointer, you must first remove the protective plastic cover between the battery and the battery clip.

2. To turn on the Star Pointer, slide the On/Off switch to the 1 "On" position. To increase the brightness level of the red dot, slide the switch to the 2 "On" position.

3. Locate a bright star or planet and center it in a low power eyepiece in the main telescope.

4. With both eyes open, look through the glass window at the alignment star.

5. If the Star Pointer is perfectly aligned, you will see the red LED dot overlap the alignment star. If the Star Pointer is not aligned, take notice of where the red dot is relative to the bright star.

6. Without moving the main telescope, turn the Star Pointer's azimuth and altitude adjustment knobs until the red dot is directly over the alignment star.

The Star Pointer is now ready to be used. **Remember to always turn the power off after you have found an object. This will extend the life of both the battery and the LED.**

Pointing the AZ Telescope

The Altazimuth mount can be moved in two directions; vertically, which is called altitude and horizontally, which is called azimuth.

Altitude
• For major directional changes in altitude, hold the end of the telescope tube and move the telescope to the desired orientation.

• For fine adjustments in altitude, turn the slow motion control knob on the right side of the mount. Turning the knob clockwise lowers the angle at which the telescope is aiming while turning it counterclockwise raises the angle at which the telescope is aiming.

Azimuth
• For major directional changes in azimuth, loosen the azimuth tension knob (Figure 5) on the right side of the mount. Once loose, point the telescope to the desired area and tighten the azimuth tension knob.

• For fine adjustments in azimuth, turn the slow motion control knob on the left side of the mount. Turning the knob clockwise moves the telescope to the right while turning it counterclockwise moves the telescope to the left.

NOTE: The azimuth slow motion knob will **NOT** work while the azimuth tension knob is loose. The azimuth tension knob must be fully tightened before you can use the azimuth slow motion control knob.

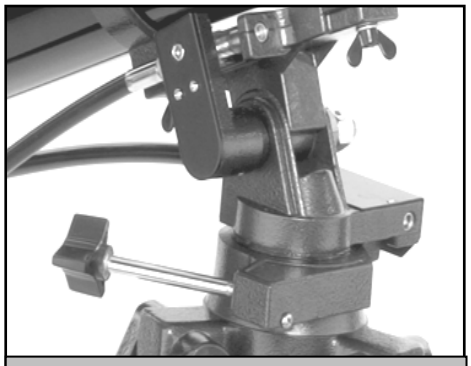


Figure 5 – Azimuth tension knob

Telescope Basics

A telescope is an instrument that collects and focuses light. The nature of the optical design determines how the light is focused. Some telescopes, known as refractors, use lenses. Other telescopes, known as reflectors, use mirrors.
Your Firstscope telescope is a refractor telescope that use an objective lens to collect its light.

Image Orientation

The image orientation of any telescope changes depending on how the eyepiece is inserted into the telescope. When observing through a refractor telescope using the erect image diagonal, the image will be correct. However, when observing straight through, with the eyepiece inserted directly into the telescope, the image will be inverted.

Image as seen when using the erect image diagonal

Inverted image, as viewed with the eyepiece directly in telescope

Figure 6

Focusing

To focus your telescope, simply turn the focus knob located directly below the eyepiece holder. Turning the knob clockwise allows you to focus on an object that is farther than the one you are currently observing. Turning the knob counterclockwise from you allows you to focus on an object closer than the one you are currently observing.

- If you wear corrective lenses (specifically glasses), you may want to remove them when observing with an eyepiece attached to the telescope. However, when using a camera you should always wear corrective lenses to ensure the sharpest possible focus. If you have astigmatism, corrective lenses must be worn at all times.

- Avoid looking through glass. Glass found in household windows is optically imperfect, and as a result, may vary in thickness from one part of a window to the next. This inconsistency can and will affect the ability to focus your telescope. In most cases, you will not be able to achieve a truly sharp focus. In some cases, you may actually see a double image.

- Never look across or over objects producing heat waves. This includes asphalt parking lots on hot summer days or building rooftops.

- Hazy skies, fog, and mist can also make it difficult to focus when viewing terrestrially. The amount of detail that can be seen under these conditions will be greatly reduced. Also, when photographing under these conditions, the processed film may come out a little grainier than normal.

- When using your telescope as a telephoto lens, the split screen or microprism focuser of the 35mm camera may "black out." This is common with all long focal length lenses. If this happens, use the ground glass portion of your focusing screen. To achieve a very sharp focus, you may consider using a focusing magnifier. These are readily available from your local camera store.

MAGNIFICATION (POWER)

The magnification (or power) of a telescope is variable depending upon the focal length of the eyepiece being used along with the focal length of the telescope. In equation format, the formula looks like this:

$$Magnification = \frac{FL(telescope)}{FL(eyepiece)}$$

To determine the magnification using the standard 20mm eyepiece, simply divide the focal length of your telescope by the focal length of the eyepiece (20mm). For example, dividing the focal length of the Firstscope 90 (1000mm) by 20mm yields a magnification of 50 power.

Magnification through the telescope has its limits. These limits are determined by the laws of optics and the nature of the human eye. The maximum usable power is equal to 60 times the aperture of the telescope (in inches). For example, with the 90mm model (3.5") then your maximum useful power is 210x (3.5" x 60). You can create power higher than this limit but the images will be dark and blurred with poor contrast.

The maximum power is used only under ideal conditions which are not common. Most of your viewing will be done in the range of 25x to 120x. Higher powers are used mainly for lunar and planetary observing under ideal seeing conditions.

Determining Field of View

Determining the field of view is important if you want to get an idea of the angular size of the object you are observing. To calculate the actual field of view, divide the apparent field of the eyepiece (supplied by the eyepiece manufacturer) by the magnification. In equation format, the formula looks like this:

$$\text{True Field} = \frac{\text{Apparent Field of Eyepiece}}{\text{Magnification}}$$

As you can see, before determining the field of view, you must calculate the magnification. Using the example in the previous section, we can determine the field of view using the same 20mm eyepiece. The 20mm eyepiece has an apparent field of view of 45°. Divide the 45° by the magnification, which is 50 power. This yields an actual field of .9°, or almost a full degree.

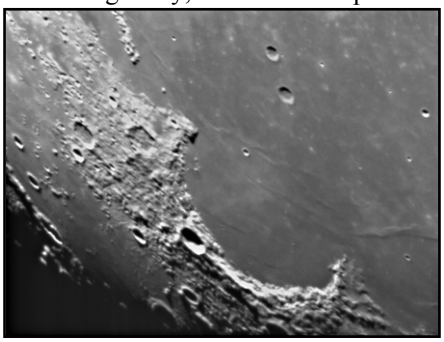
To convert degrees to feet at 1,000 yards, which is more useful for terrestrial observing, simply multiply by 52.5. Continuing with our example, multiply the angular field .9° by 52.5. This produces a linear field width of over 47 feet at a distance of one thousand yards. The apparent field of each eyepiece that Celestron manufactures is found in the Celestron Accessory Catalog (#93685).

CELESTIAL OBSERVING

Now that your telescope is set up, you're ready to use it for observing. This section covers visual observing for both solar system and deep-sky objects.

Observing the Moon

In the night sky, the moon is a prime target for your first look because it is extremely bright and easy to find. Although the beauty of the full moon may make it seem a perfect viewing object, in fact, the light reflected from its fully illuminated face can be overpowering. In addition, little or no contrast can be seen during this phase.



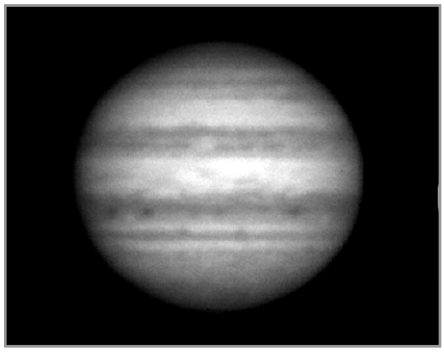
One of the best times to observe the moon is during its partial phases, such as a crescent or quarter moon. At these times, long shadows reveal a great amount of detail on the lunar surface. At low power, with the standard eyepiece, you'll be able to see the whole lunar disk at one time. Change to higher power (magnification) with an optional eyepiece to focus in on a smaller area. Keep in mind that the rotation of the earth will cause the moon to drift out of your field of view. You'll have to manually adjust the telescope to keep the moon centered. This effect is more noticeable at higher power. Consult a current astronomy magazine or your local newspaper to find out the current phase of the moon.

Lunar Observing Hint

To increase contrast and bring out visible detail on the lunar surface, try using different filters (available through your local **Celestron** dealer). A yellow filter works well for improving contrast.

Observing the Planets

Other easy targets include the five "naked eye" planets of our solar system, so called because they can be spotted in the night sky by the unaided eye. You can see **Venus** go through its lunar-like phases. **Mars** can reveal a host of surface detail and one, if not both, of its polar caps. You'll be able to see the cloud belts of **Jupiter**, perhaps even the great Red Spot. In addition, you'll be able to see the moons of Jupiter as they orbit the giant planet. **Saturn**, with its beautiful rings, is easily visible at moderate power, as is **Mercury**. All you need to know is where to look. Most astronomy publications indicate where the planets are in the sky each month.



Observing Deep-Sky Objects

Deep-sky objects are simply those objects outside the boundaries of our solar system. They include star clusters, planetary nebulae, diffuse nebulae, double stars and other galaxies outside our own Milky Way. Unlike the sun, moon and our five major planets, most deep-sky objects are not visible to the naked eye. Finding them requires a method called star hopping. **Celestron** Sky Maps (#93722) can help you locate the brightest deep-sky objects.

Most deep-sky objects have a large angular size. Therefore, a low-to-moderate power eyepiece is all you need to see them. Visually, they are too faint to reveal any of the color seen in long exposure photographs. Instead, they appear black and white. Because of their low surface brightness, they should be observed from a "dark-sky" location. Light pollution around large urban areas washes out most nebulae making them difficult, if not impossible, to observe.

Terrestrial (Land) Viewing

Your Firstscope 90 AZ also makes an excellent daytime spotting scope. For daytime viewing, the 45˚ erect image diagonal must be inserted into the telescope's focuser. For correct viewing of land objects make sure the eyepiece is pointing straight up out of the diagonal. Rotating the eyepiece and diagonal to either side will cause the image to also rotate in the field of view of the eyepiece.

"Seeing" Conditions

Viewing conditions affect what you can see through your telescope during an observing session. Conditions include transparency, sky illumination and "seeing". Understanding viewing conditions and the affect they have on observing will help you get the most out of your telescope.

Transparency

Transparency refers to the clarity of the atmosphere and is affected by clouds, moisture, dust and other airborne particles. Thick cumulus clouds are completely opaque, while cirrus clouds can be thin, allowing light from the brightest stars through. Hazy skies absorb more light than clear skies, making fainter objects hard to see and reducing contrast on brighter objects. Dust particles and gases ejected into the upper atmosphere from volcanic eruptions also affect transparency. Ideal conditions are when the night sky is inky black.

Sky Illumination

General sky brightening caused by the moon, aurorae, natural airglow and light pollution greatly affect transparency. While not a problem when viewing brighter stars and planets, bright skies reduce the contrast of extended nebulae, making them difficult, if not impossible, to see. To maximize your observing, limit deep-sky viewing to moonless nights, far from the light polluted skies found around major urban areas. Light Pollution Reduction (LPR) filters enhance deep-sky viewing from light polluted areas by blocking unwanted light, while transmitting light from certain deep-sky objects. Planets and stars can still be observed from light pollued areas or when the moon is out.

"Seeing"

The terms "seeing conditions" or "seeing" refer to the stability of the atmosphere, which directly effects the amount of fine detail seen in extended objects. Essentially, extended objects are objects other than stars, of some size, such as nebulae and galaxies.

The air in our atmosphere acts as a lens, which bends and distorts incoming light rays. The amount of bending depends on air density. Varying temperature layers have different densities and, therefore, bend light differently. Light rays from the same object arrive slightly displaced, creating an imperfect or smeared image. These atmospheric disturbances vary from time-to-time and place-to-place. Another form of turbulence that affects seeing conditions is referred to as "air parcels". These air parcels are the smaller turbulence patterns in the air, within your immediate environment. The size of the air parcels, compared to the aperture of your telescope, also determines seeing quality. Under good seeing conditions, fine detail is visible on the brighter planets like Jupiter and Mars, and stars are pinpoint images. Under poor seeing conditions, images are blurred and star images are diffuse. Seeing conditions are rated on a five-point scale with one being the worst condition and five the best. Seeing conditions can be classified in one of three categories. The definitions of these categories are based on the causes of the different seeing conditions.

Type 1 seeing conditions are characterized by rapid changes in the image seen through the telescope. Extended objects, like the moon, appear to shimmer while point sources (stars) appear double. Type 1 seeing is caused by air currents within, or very close to, the telescope tube. These currents are caused by a telescope that has not reached thermal equilibrium with the outdoor surroundings or heat waves from people standing near the telescope. To avoid the problems associated with Type 1 seeing, allow your telescope approximately 30 minutes outdoors to reach thermal equilibrium with the environment. If observing with others, make sure no one stands in front of or directly below the telescope tube.

The images produced by **Type 2** seeing conditions don't move as quickly as those produced by Type 1 conditions, but the images are quite blurry. Fine detail is lost and contrast is low for extended objects. Stars appear spread out and lack sharpness. Type 2 seeing conditions are produced in the lower atmosphere, most likely by heat waves from the ground or buildings. To avoid the problems associated with Type 2 seeing, select a good observing site. Look for broad hilltops or open grassy fields. Stable thermal conditions found near lakes and atmospheric inversions tend to produce good seeing. Avoid sites that overlook asphalt parking lots, plowed fields, valleys or shorelines. If you can't get a better location, wait until the early morning hours when the surroundings are uniformly cool and seeing is generally better.

Type 3 seeing conditions are characterized by fast ripples that create shimmer in the visual field, affecting otherwise sharp images. For extended objects, fine details are visible, but images shift around the field. Stars are crisp points, but they rapidly shift small distances within the field of view. The cause of Type 3 seeing is turbulence in the upper atmosphere, which means the observer has no control over it. However, the effects of Type 3 seeing are generally less pronounced than those of Type 1 and 2 conditions. Type 3 seeing conditions can't really be avoided, so your best bet is to wait for moments of atmospheric steadiness. If seeing conditions are extremely bad, you might consider waiting for a better night.

The conditions described here apply to both visual and photographic observations.

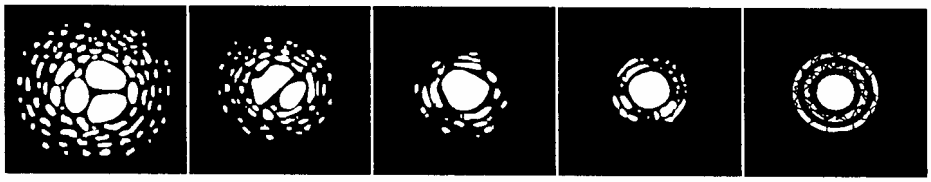


Figure 7

Seeing conditions directly affect image quality. These drawings represent a point source (i.e., star) under bad seeing conditions (left) to excellent conditions (right). Most often, seeing conditions produce images that lie somewhere between these two extremes.

Photography Hints

Your Celestron can be used for both terrestrial and astronomical photography. Celestron telescopes have fixed apertures and, as a result, fixed f/ratios. To properly expose your subjects photographically you need to set your shutter speed accordingly. Most 35mm cameras offer through-the-lens metering which will let you know if your picture will be under or over exposed. This is more of a consideration when doing terrestrial photography where exposure times are measured in hundredths of a second. In astrophotography, the exposures are much longer requiring that you use the "B" setting on your camera. The actual exposure time is determined by how long you keep the shutter open. To reduce vibration when tripping the shutter, use

a cable release. Releasing the shutter manually can cause vibration, something that can produce unsharp photos. A cable release will keep your hands clear of the camera and telescope, thus eliminating the possibility of introducing vibration. Mechanical shutter releases can be used, though air type releases are best. In addition, remember the focusing hints described earlier in this manual.

Your Firstscope 90 AZ is equipped with a built-on piggyback mount located on the top of the mounting ring (figure 8). The adapter has a ¼"-20 photographic thread that attached to the body of most 35mm cameras.

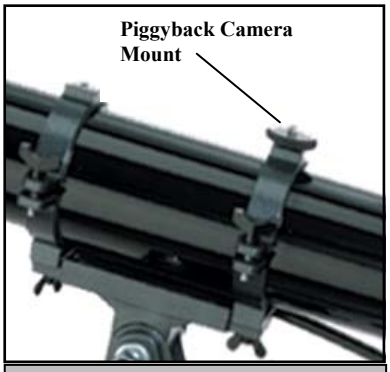


Figure 8

TELESCOPE MAINTENANCE

With proper care your telescope should rarely need any maintenance work.

A. When not in use, always replace all lens covers to keep dust and contaminants off the optical surfaces.

B. A small amount of dust on any optical surface is ok. If the dust builds up then use a can of compressed air and then a camel's hair brush to remove the dust.

C. If the lens need cleaning, it should be cleaned by a professional. Either have your instrument serviced by a telescope repair facility or return it to the factory.

SPECIFICATIONS

	#21084
Optical System:	Refractor
Aperture:	90mm (3.5")
Focal Length:	1000mm
F/ratio:	f/11
Focuser	Rack and Pinion
Standard Eyepieces	20mm 1¼" (50x)
	10mm 1¼" (100x)
Resolution	1.3arc seconds
Light gathering Power	165x unaided eye
Limiting Magnitude	12.3
Highest useful Power	213x

NOTE: Specifications are subject to change without notice.

OPTIONAL ACCESSORIES

You will find that additional accessories enhance your viewing pleasure and expand the usefulness of your telescope. For ease of reference, all the accessories are listed in alphabetical order.

Barlow Lens - A Barlow lens is a negative lens that increases the focal length of a telescope. Used with any eyepiece, it doubles the magnification of that eyepiece. Celestron offers two Barlow lens in the 1-1/4" size. The 2x Ultima Barlow (#93506) is a compact triplet design that is fully multicoated for maximum light transmission and parfocal when used with the Ultima eyepieces. The OMNI Barlow (#93326) is a compact achromatic Barlow lens that is under three inches long and weighs only 4 oz. It works very well with all Celestron eyepieces.

Exotherm (#93504)- Perfect for chilly evenings outdoors camping, stargazing, or at sporting events, the Exotherm hand warmer is convenient, reusable and made from nontoxic materials. Heat lasts up to 1 hour.

Eyepieces - Like telescopes, eyepieces come in a variety of designs. Each design has its own advantages and disadvantages. For the 1-1/4" barrel diameter there are four different eyepiece designs available.

- **OMNI Plössl** - Plössl eyepieces have a 4-element lens designed for low-to-high power observing. The Plössls offer razor sharp views across the entire field, even at the edges! In the 1-1/4" barrel diameter, they are available in the following focal lengths: 4mm, 6mm, 9mm, 12.5mm, 15mm, 20mm, 25mm, 32mm and 40mm.

- **X-Cel** - This 6 element design allows each X-Cel Eyepiece to have 20mm of eye relief, 55° field of view and more than 25mm of lens aperture (even with the 2.3mm). In order to maintain razor sharp, color corrected images across its 55° field of view, extra-low dispersion glass is used for the most highly curved optical elements. The excellent refractive properties of these high grade optical elements, make the X-Cel line especially well suited for high magnification planetary viewing where sharp, color-free views are most appreciated. X-Cel eyepiece come in the following focal lengths: 2.3mm, 5mm, 8mm, 10mm, 12.5mm, 18mm, 21mm, 25mm.

- **Ultima** - Ultima is our 5-element, wide field eyepiece design. In the 1-1/4" barrel diameter, they are available in the following focal lengths: 5mm, 7.5mm, 10mm, 12.5mm, 18mm, 30mm, 35mm, and 42mm. These eyepieces are all parfocal.

- **Axiom** – As an extension of the Ultima line, a new wide angle series is offered – called the Axiom series. All units are seven element designs and feature a 70º extra wide field of view (except the 50mm). All are fully multicoated and contain all the features of the Ultimas.

Filters Sets, Eyepiece - Celestron offers four convenient filter sets, which contain four different filters per set. Not only are these highly useful filter combinations, but they also offer an economical way to add versatility to your filter collection.

Series 1 – #94119-10
Orange, Light Blue, ND13%T, Polarizing (#s 21, 80A, #15, Polarizing)

Series 2 – #94119-20
Deep Yellow, Red, Light Green, ND25% T (#s 12, 25, 56, 96ND-25)

Series 3 – #94119-30
Light Red, Blue, Green, ND50% T (#s 23A, 38A, 58, 96ND-50)

Series 4 – #94119-40
Yellow, Deep Yellow, Violet, Pale Blue (#s 8, 47, 82A, 96ND-13)

Flashlight, Night Vision - (#93588) - Celestron's premium model for astronomy, using two red LED's to preserve night vision better than red filters or other devices. Brightness is adjustable. Operates on a single 9 volt battery (included).

Light Pollution Reduction (LPR) Filters (#94126A) - These filters are designed to enhance your views of deep sky astronomical objects when viewed from urban areas. LPR Filters selectively reduce the transmission of certain wavelengths of light, specifically those produced by artificial lights. This includes mercury and high and low pressure sodium vapor lights. In addition, they also block unwanted natural light (sky glow) caused by neutral oxygen emission in our atmosphere.

Moon Filter (#94119-A) - Celestron's Moon Filter is an economical eyepiece filter for reducing the brightness of the moon and improving contrast, so greater detail can be observed on the lunar surface. The clear aperture is 21mm and the transmission is about 18%.

Peterson First Guides® - Astronomy (#93728)
A simplified field guide to the stars, the planets and the universe featuring full color maps showing the positions of the stars throughout the year. This useful guide also includes beautiful constellation paintings, photographs, and clear, concise descriptions of stars, the planets, the sun, the moon, comets, black holes, galaxies and more.

Polarizing Filter Set (#93608) - The polarizing filter set limits the transmission of light to a specific plane, thus increasing contrast between various objects. This is used primarily for terrestrial, lunar and planetary observing.

Sky Maps (#93722) - Celestron Sky Maps are the ideal teaching guide for learning the night sky. You wouldn't set off on a road trip without a road map, and you don't need to try to navigate the night sky without a map either. Even if you already know your way around the major constellations, these maps can help you locate all kinds of fascinating objects.

T-Adapter (#93625) - T-Adapter (with additional T-Ring) allows you to attach your SLR camera to the rear cell of your Celestron telescope. This turns your telescope into a high power telephoto lens perfect for terrestrial photography and short exposure lunar and filtered solar photography.

A full description of all Celestron accessories can be found in the Celestron Accessory Catalog (#93685) or web site www.celestron.com

CELESTRON TWO YEAR WARRANTY

A. Celestron warrants this telescope to be free from defects in materials and workmanship for two years. Celestron will repair or replace such product or part thereof which, upon inspection by Celestron, is found to be defective in materials or workmanship. As a condition to the obligation of Celestron to repair or replace such product, the product must be returned to Celestron together with proof-of-purchase satisfactory to Celestron.

B. The Proper Return Authorization Number must be obtained from Celestron in advance of return. Call Celestron at (310) 328-9560 to receive the number to be displayed on the outside of your shipping container.

All returns must be accompanied by a written statement setting forth the name, address, and daytime telephone number of the owner, together with a brief description of any claimed defects. Parts or product for which replacement is made shall become the property of Celestron.

The customer shall be responsible for all costs of transportation and insurance, both to and from the factory of Celestron, and shall be required to prepay such costs.

Celestron shall use reasonable efforts to repair or replace any telescope covered by this warranty within thirty days of receipt. In the event repair or replacement shall require more than thirty days, Celestron shall notify the customer accordingly. Celestron reserves the right to replace any product which has been discontinued from its product line with a new product of comparable value and function.

This warranty shall be void and of no force of effect in the event a covered product has been modified in design or function, or subjected to abuse, misuse, mishandling or unauthorized repair. Further, product malfunction or deterioration due to normal wear is not covered by this warranty.

CELESTRON DISCLAIMS ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR USE, EXCEPT AS EXPRESSLY SET FORTH HEREIN.

THE SOLE OBLIGATION OF CELESTRON UNDER THIS LIMITED WARRANTY SHALL BE TO REPAIR OR REPLACE THE COVERED PRODUCT, IN ACCORDANCE WITH THE TERMS SET FORTH HEREIN. CELESTRON EXPRESSLY DISCLAIMS ANY LOST PROFITS, GENERAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM BREACH OF ANY WARRANTY, OR ARISING OUT OF THE USE OR INABILITY TO USE ANY CELESTRON PRODUCT. ANY WARRANTIES WHICH ARE IMPLIED AND WHICH CANNOT BE DISCLAIMED SHALL BE LIMITED IN DURATION TO A TERM OF TWO YEARS FROM THE DATE OF ORIGINAL RETAIL PURCHASE.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Celestron reserves the right to modify or discontinue, without prior notice to you, any model or style telescope.

If warranty problems arise, or if you need assistance in using your telescope contact:

Celestron
Customer Service Department
2835 Columbia Street
Torrance, CA 90503 U.S.A.
Tel. (310) 328-9560
Fax. (310) 212-5835
Monday-Friday 8AM-4PM PST

All authorized returns should be shipped to :
Celestron
1380 Charles Willard St
Carson, CA 90747

This warranty supersedes all other product warranties.

NOTE: This warranty is valid to U.S.A. and Canadian customers who have purchased this product from an Authorized Celestron Dealer in the U.S.A. or Canada. Warranty outside the U.S.A. and Canada is valid only to customers who purchased from a Celestron Distributor or Authorized Celestron Dealer in the specific country and please contact them for any warranty service.

Celestron
2835 Columbia Street
Torrance, CA 90503 U.S.A.
Tel. (310) 328-9560
Fax. (310) 212-5835
Web site at www.celestron.com

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